1ST edition

91-02923/

Charlie

CHBA/CMHC DEMONSTRATION HOME

Canada Mortgage and Housing Corporation

Société canadienne d'hypothèques et de logement

CANADIAN HOME BUILDERS' ASSOCIATION

HAMILTON & DISTRICT HOME BUILDERS' ASSOCIATION

R2000

Welcome to the CHBA/CMHC Demonstration home

On behalf of the Hamilton & District Home Builders' Association, I am very pleased to introduce members of the housing industry and the general public to the CHBA/CMHC Demonstration Home affectionately named "CHARLIE".

The idea to build this highly innovative housing structure began as a result of our association hosting the 1989 Canadian Home Builders' Association Conference. We wanted to provide an item that would be of interest to builders, developers, tradespeople and other housing professionals from across the country. In developing the project, we focussed on the changing needs of housing in Canada, and in particular in our local area. Therefore, we determined that we also had an obligation to inform the general public about the need to change our vision of housing as our society evolves and changes.

Builders must build homes to meet the needs of single parents, the elderly, professional couples, empty-nesters and smaller families, all of whom are experiencing changing lifestyles. To meet these changes, we need to consider housing options that are affordable, attractive and acceptable to the community. Hence the construction of the CHBA/CMHC Demonstration Home which touches on a number of concepts as follows:

C - Canadian
H - Housing
A - Alternative
R - Regulatory Reform
L - Lifestyle
I - Innovative
E - Excellence

Through "CHARLIE", the Canadian home building industry is focussing on the need to offer unique, innovative housing alternatives to address the changing lifestyles of the people who live and work in our communities. Part of the change that must occur is in the area of regulatory reform, which is discussed at length later in this magazine. Basically, regulatory reform recognizes the need for our governments at various levels to change and alter older, antiquated regulations or concepts in building which are stifling the abilities of builders to meet the community's changing housing requirements.

While members of the Hamilton & District Home Builders' Association have initiated, organized and co-ordinated the construction of the CHBA/CMHC Demonstration Home, we are extremely thankful for the assistance of many other people who have contributed to the success of the house. In particular, we are grateful to the Board of Education for the City of Hamilton for allowing us a portion of their property to use as our housing site and to Scott Sutherland, who as a member of H.D.H.B.A., acted as the Committee Chairman for this project. As well we are grateful to CMHC for agreeing to co-sponsor the demonstration home and for the ideas on the made-to-convert concept which are described later in this publication. Other donors and participants are acknowledged later in the magazine.

We hope you enjoy your visit through the CHBA/CMHC Demonstration Home which we believe will provide you with a glimpse as to some of the housing possibilities and alternatives we, as Canadians, may be enjoying in the near future.

Yours truly,

T. Battaglia

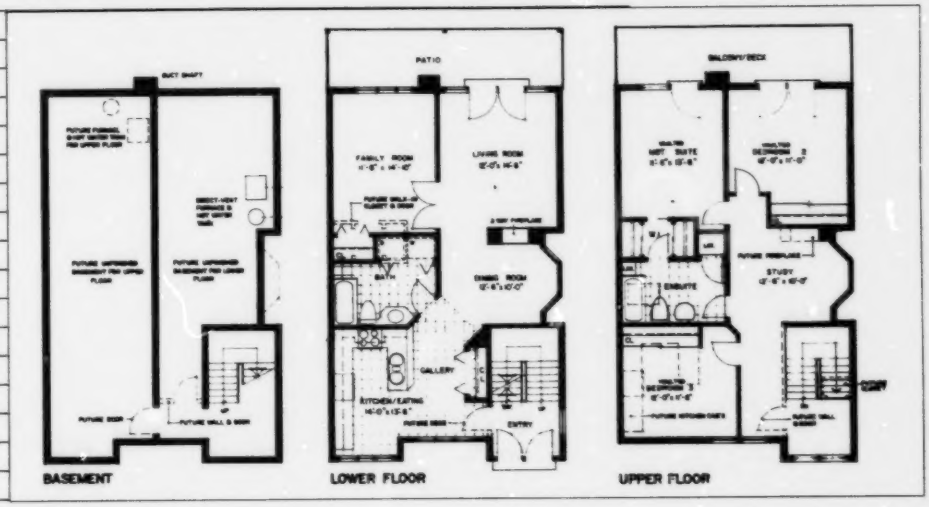
Tony Battaglia
1989 President
Hamilton & District
Home Builders' Association

Designing the CHBA/CMHC Demonstration home

3

Our task as designers on the CHBA/CMHC Demonstration Home was not just to create a dream home, but to design a plan for the future that could provide more affordable housing for Canadian families. As you will note, this home can be a single, 2,000 square foot residence, or can be converted to two completely separate single residences by simply removing a wall or two and by doing minor interior modifications.

One of the major problems facing today's first time home buyers, in our market of ever-increasing housing prices, is the debt load which they have to carry. This home has been designed to tackle this problem. If a couple were to purchase this unit, they could convert the second floor into a rental unit and use that income to offset their mortgage payments. If they required more space to raise a family they could then take over the second floor for their ownpersonal use. When their family has grown and left home, the upper unit could be reconverted back to either a rental apartment or be used to house grandparents, family members, etc., giving all parties privacy and independence. As you can see, this home can be designed and constructed to suit a myriad of needs.



In the single home scenario, the kitchen area on the second floor would be roughed in for plumbing for ease of conversion, while the bathroom on the second level and master bedroom do not change at all in the home's future metamorphosis.

All codes for fire separation will be met at the time of original construction, in an effort to minimize the cost of conversion. Separate entries to each unit are provided via the main entry, as well as entry to a split basement to contain each units mechanical/heating equipment and storage needs. Heating ducts, as well as mechanical and electrical runs for the upper unit will run up an insulated outside shaft completely separate from the unit below.

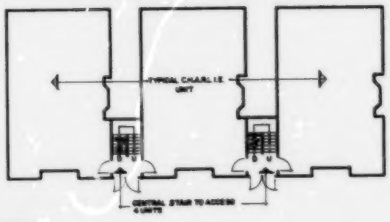


FIGURE 'A'

One of the major problems facing designers today is the spacial separation requirements for units within close proximity of each other. You will note on this house that in order to maintain the 7% spacial separation as required under the building code, we have done two things. We have used a combination of fire rated glass block assembly and have sprinklered the bay windows so as to achieve the necessary specifications.

The CHBA/CMHC Demonstration Home is not only convertible, it is also flexible. It can be constructed as a townhome by removing the stair from the front of the home (thus giving added square footage on the two levels of living area) and placing it (the stair) at the rear between a row of homes, thus creating the street townhomes. The upper units will have separate entries and a run of stairs as shown in the diagram.

We are also looking at the practical aspects of designing a two-storey stacked apartment version of the CHBA/CMHC Demonstration Home. We believe with any good design the possibilities are endless.

The CHBA/CMHC Demonstration Home was designed by Christopher R. Long of R.E. WINTER & ASSOCIATES (1988) LTD. from our office in Burlington, with our head office in Mississauga, headed by Director of Architecture, Myron P. Karp, and other offices in Ottawa, Newmarket and Barrie. We are reaching out to better serve our clients' needs.

Quality, Comfort, Control - *A home for all reasons*

The CHBA/CMHC Demonstration Home is constructed to qualify as an R-2000 Home. To get some idea of benefits of R-2000 you have to look at it through the eyes of the new home buyer.

Imagine, for a moment, living in perfect comfort, all year round ... your entire house is warm and evenly heated, even on the coldest, windiest days of winter. There are no cold rooms, no cold floors, and no cold drafts. Frost doesn't collect on the windows and the back bedroom is just as warm as the living room.

Six months later, in the humid, hot summer, your home feels cool, well-ventilated and refreshing.

The air in this remarkably comfortable home is always pure and clean. Even your friends notice the freshness. Cigarette smoke is quickly whisked away, and household odours — like the smells from last night's dinner — never linger.

Inside, the entire house is quiet and peaceful. You don't hear the neighbours, or noises from the street....

R-2000 is a demanding standard of new home construction established jointly by industry and government. Few builders in Canada have not heard of it. At first glance, an R-2000 Home looks like any other. Homes of any style, size or design can be built to the R-2000 standards. However, there are some major differences behind the walls.

The basic principles are simple. R-2000 Homes are well insulated to cut heat loss. They're carefully constructed to eliminate the hundreds of leaks and drafts that normally occur around windows, doors, baseboards and electrical outlets.

Fresh air is brought into the home and stale air is exhausted through a ventilation system — two controlled openings instead of hundreds or random ones.

It's an advanced standard of new home construction established by the Canadian Home Builders' Association and Energy, Mines and Resources, Canada. The involvement of CHBA builders in the development has ensured delivery of a product which is state-of-the-art, yet meets the needs of the market.

R-2000 Homes come in all styles, designs and sizes. What they have in common are the exceptionally high levels of quality, comfort and energy efficiency that are built into every home in order to meet the R-2000 standard.

For today's new homes buyer, R-2000 delivers important and lasting benefits.

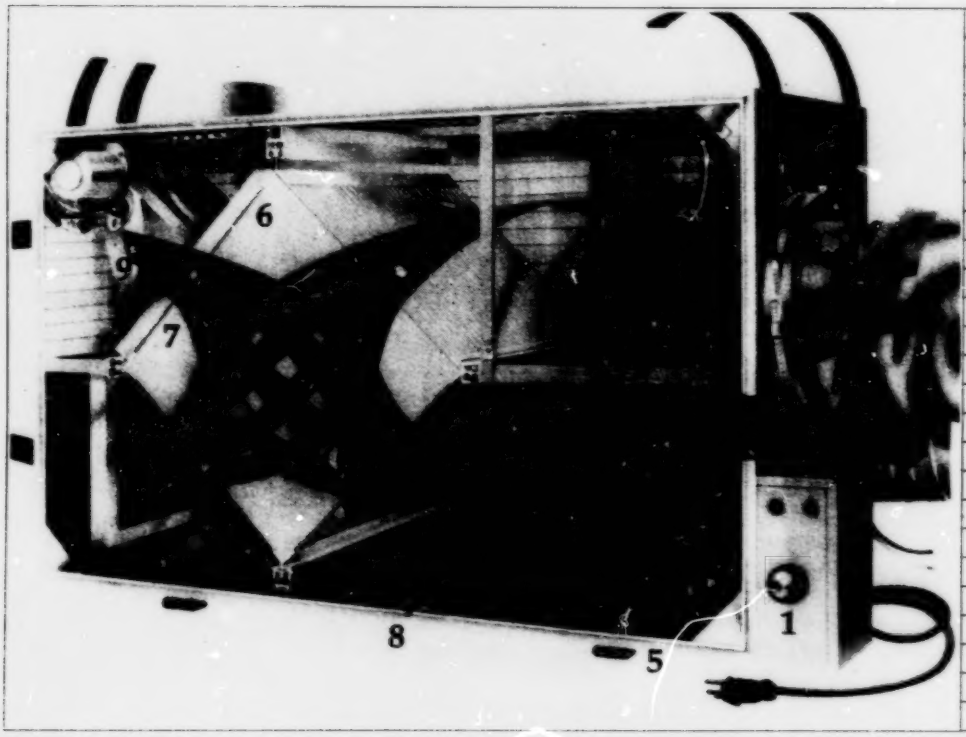


Figure 1: *The lungs of an R-2000 house - the Heat Recovery Ventilator. Once only available as a prototype, these units are available in a range of sizes from several CSA-recognized manufacturers.*

LEGEND

1. Controls
2. Energy-Efficient Motors
3. High Quality Blower Wheels
4. Points of Vibration Isolation
5. Removable Service Panel
6. Removable Core
7. Permanent Washable Filters
8. Two Condensate Drains
9. Double Duct Collars
10. Frostbuster™ Defrost System

DIMENSIONS

Length 34" (864mm)
Width 17" (432mm)
Depth 20 3/4" (527mm)

Quality, Comfort, Control - A home for all reasons

Quality:

When a new home buyer chooses an R-2000 Home, that buyer knows that he is choosing a committed builder who has invested the time and effort to master new technologies. He knows he is getting superior construction quality and attention to detail — a home that is endorsed by both industry and government.

Every R-2000 Builder must complete special training in advanced construction methods before building an R-2000 home. Every R-2000 Home is individually tested to ensure that it meets the stringent R-2000 standard.

Similarly, heating/ventilation trades must be specially trained, use only CSA tested and approved equipment, and install it in keeping with thoroughly researched guidelines developed by industry/government committees.

Comfort:

An R-2000 home is engineered and built from the foundation up to give a more comfortable indoor living environment.

Inside, fresh, clean, filtered air is circulated through every room. Indoor humidity is within the owner's control. Temperatures are even throughout the house, and drafts are virtually non-existent. Indoor quiet is assured because the extra insulation blanketing the house also blocks outside noises.

Indoor comfort - even the quality and freshness of the air — is completely and conveniently in the home owner's control.

Energy Efficiency:

R-2000 Home plans are computer analyzed to ensure energy efficiency. The plans must include features that combine to deliver low energy costs — features like extra insulation, a continuous air/vapour barrier, high efficiency heating systems, multi-glazed windows and insulated doors, passive solar heating, and more.

Things to Look for:

When you go through the 1989 CHBA/CMHC Demonstration Home, look for the R-2000 features. Several items indicate its R-2000 identity, including:

- Full 2 x 6 wall construction;
- Special sealing/air leakage control of wall electrical outlets;
- An efficient heating system;
- A heat recovery ventilator system;
- High quality windows installed to resist air leakage and moisture problems.

Now is the time for you to consider "R-2000" — an increasingly important marketing angle for new houses.

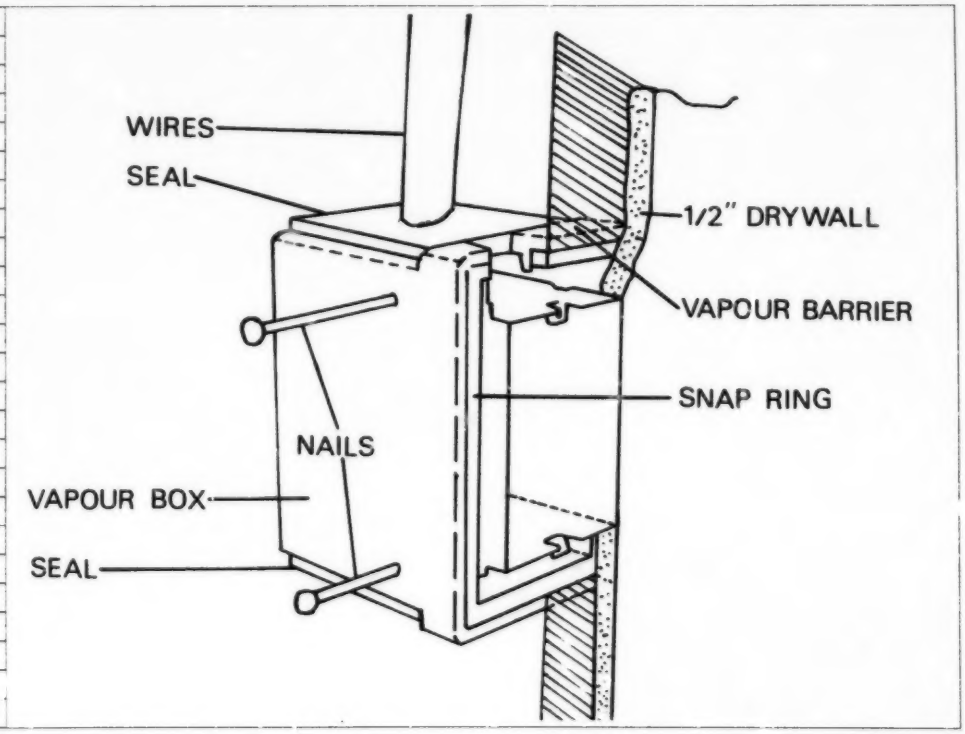


Figure 2: *Exterior wall outlet box. Designed to minimize air leakage and moisture problems.*

Regulatory Reform: A time for action

Regulation In The Housing Industry

Three, sometimes four, levels of government develop policies, standards and codes related to the production and use of housing. Regulation aims both to ensure the health and safety of the public, and to allow the effective management of land and housing while considering social, economic and environmental issues.

A major concern is people's ability to rent or buy adequate housing at a price they can afford. Developers, builders and governments share a number of other concerns: the need for clear, consistent, speedy approval processes; lower land and building costs; and good quality construction and infrastructure.

Current regulations are restricting the implementation of a variety of housing types and tenures in communities across Canada. *Regulatory reform* involves examining and modifying the regulations and implementation of regulations which preclude or impede the production of housing. It is expected that regulatory reform in the housing sector will decrease the cost of developing land and building houses, and improve the utilization of existing housing stock. Regulatory reform could also pave the way for innovative approaches to house design and construction, and community development, that would meet market demands better, and less expensively, than at present.

The Program To Stimulate Regulatory Reform

Recognizing the inherent complexity of regulatory reform, and the housing industry's and government's desire for action on regulatory reform, the Federation of Canadian Municipalities, the Canadian Home Builders' Association, and the Canadian Housing and Renewal Association (formerly the Canadian Association of Housing and Renewal Officials) formed the *Tripartite Group*. The Tripartite Group has undertaken a three phase Program to Stimulate Regulatory Reform. Canada Mortgage and Housing Corporation is financing the project.

The main objective of the Program to Stimulate Regulatory Reform is to improve affordability and choice for all types, tenures and forms of housing. Phase I of the program involves the production of communication material and action plans to stimulate demonstration projects and streamlined approval processes. Phase II is the implementation of a Program to Stimulate Demonstration Projects. Phase III is the implementation of a Program to Stimulate Development and Adoption of Streamlined Approval Processes. Areas targeted for regulatory reform action include: building and land development standards; renovations; manufactured housing; and the approval process for land development and building construction.

CHBA/CMHC Demonstration Home And Regulatory Reform

Increasing public pressure to achieve greater housing affordability and the associated need for regulatory reform prompted the Hamilton & District Home Builders' Association to design a house specifically to identify problems in or impediments to the production of innovative, flexible, desirable and affordable forms of housing.

It is expected that the CHBA/CMHC Demonstration Home will provide a focus for discussion between builders, developers, governments and the public, and act as a catalyst for regulatory reform action.

In designing the CHBA/CMHC Demonstration Home, key issues were *affordability* and *flexibility*. Cost savings were achieved by creating two stacked units — increased density — and using new, innovative products, many of which are less expensive than products currently approved under the building code. It is important to provide sufficient supplies of all types of housing to react to the demands of the marketplace and thereby control costs. Additional savings could be realized by "fast-tracking" — speeding up the approval process. Flexibility is inherent in the fact that this dwelling is designed as two, one-bedroom, self-contained units, which are convertible to a two-storey, single-family home. The dwelling retains the appearance of a single-family home even as a two-dwelling unit. A young couple might buy the house and then rent one floor as an accessory apartment to help pay the mortgage. The entire dwelling might be used as the family increases in number. As the size of the family shrinks, the other level may be sold. A more detailed description of the home can be found in other articles in this magazine.

What follows is a brief discussion of regulatory issues which are raised by the CHBA/CMHC Demonstration Home. There are at least three types of *land development controls* which the CHBA/CMHC Demonstration Home must comply with. First are *provincial and municipal land use plans*. These plans set out the general objectives of the municipality and the policies that guide future land use. Both new development and redevelopment must conform to land use plans.

In some municipalities the construction of the CHBA/CMHC Demonstration Home will require amendments to the Municipal Official Plan, if policies do not allow or encourage forms of housing in which occupancy and form may convert from a single-family dwelling to two self-contained dwellings.

To improve housing affordability and choice, land use plans need to allow and encourage the development of a wider variety of housing types throughout communities, from conventional single-family homes to multiple-unit dwellings and convertible dwellings such as the CHBA/CMHC Demonstration Home.

Secondly, *municipal zoning by-laws* implement land use plans by defining land uses and development standards allowed in specific locations. If *every detail* of the site plan proposed in a new development or an established neighbourhood does not conform to the requirements of the zoning by-law, rezoning is required before construction can begin.

Before rezoning a property, or a group of properties, municipal council must inform the public of their intention and hold a public meeting. In Ontario, the public has the right to appeal the rezoning to the Ontario Municipal Board. The rezoning process, in some cases, is long and

hence costly.

If the CHBA/CMHC Demonstration Home is built on a lot designated for single-family use, rezoning will be required for both new developments and redevelopments. Most established neighbourhoods and areas for new developments are zoned primarily for single-family dwellings. By-laws need to be more flexible if new forms of housing and higher densities of housing are to be built in communities. For example, zoning in new developments could include provisions for conversions from single to multiple units, and municipalities could rezone areas in established communities which are appropriate for intensification.

Thirdly, *subdivision plan approvals* are required to ensure that: the site is suitable for its proposed new use; the proposal conforms to provincial and municipal legislation, policies, plans and zoning by-laws; and the proposal does not put an undue strain on community facilities, services or finances.

The process of obtaining approval for subdivision plans can involve many different government departments and agencies. It is not unusual for the approval process to take two to three years. Incorporating atypical developments, such as the CHBA/CMHC Demonstration Home, into the subdivision plan may further delay its approval process. Developers are required to carry the costs of interest and taxes through the development approval process. These costs must then be incorporated into the home.

A helpful change in approving subdivision plans would be to establish deadlines within which departments must respond to the proposal. One proposed approach is to go so far as to assume acceptance of the proposal if a department does not respond within the established time period.

Another aspect of regulation concerns *building controls*. One type of building control is the *building permit approval process*. A municipal building permit is required for the construction of a new home as well as additions and alterations to existing homes. In most municipalities the process to obtain a building permit is the same for all residential developments, regardless of size and cost.

The building permit approval process can be lengthy — adding to the cost of a home. Obtaining a building permit requires adherence to building codes and the acceptance of the detailed building plans by a number of departments and agencies. Delays can occur if applications are not completed properly, staffing levels cannot meet demand, or approving agencies do not respond promptly.

As the CHBA/CMHC Demonstration Home is an "atypical" design it could take even longer than usual to obtain a building permit.

Suggestions for decreasing the processing time include: establishing a mechanism to review an application on request, to ensure that it is completed properly prior to submission; assigning one person (e.g., the municipal planner) to be responsible for coordinating the entire package of approvals on a property; and the creation of a separate approval stream for atypical developments, so that procedural delays do not discourage the building of innovative houses like the CHBA/CMHC Demonstration Home.

Another type of building control is *building and related codes*. All provinces and territories have various codes which detail the methods of construction, types of materials and provision of facilities required in house. These include structural, fire, plumbing and electrical codes. At various stages of construction, municipal inspectors examine the house to ensure it conforms to the codes.

Scheduling inspections, however, can be a problem for both builders and municipalities. Builders depend upon inspections at a specific time in order to continue construction and time the activities of several trades; municipal inspectors have peaks in their workload, depending upon the time of year.

Inspection delays can increase the cost of constructing the CHBA/CMHC Demonstration Home. Suggestions for improving the scheduling of inspections include: municipalities certifying architects, engineers and/or builders to conduct inspections — hence, increasing the number of inspectors; and training all municipal plumbing, electrical, structural and fire code inspectors in all four specialties.

Another aspect of regulation concerns *ownership restrictions*. The traditional form of home ownership is freehold-property fronting on public streets. In Ontario, the only way to sell the top unit of the CHBA/CMHC Demonstration Home is to register the house as a condominium corporation. This a time-consuming and complex process.

Innovative approaches would increase the opportunities for home ownership. For example, a simple application form and registration process to allow for ownership of one of several vertical levels of housing would increase housing choice.

How You Can Become Involved

Information kits on regulatory reform will be available from the Tripartite Group in Spring 1989. For more information on the PROGRAM TO STIMULATE REGULATORY REFORM contact:

Federation of Canadian Municipalities-(613) 237-5221
24 Clarence Street, Ottawa, Ontario K1N 5P3

Canadian Home Builders' Association - (613) 230-3060
200 Elgin Street, Suite 502, Ottawa, Ontario K2P 1L5

Canadian Housing and Renewal Association
P.O. Box/C.P. 3312, Stn. D, Ottawa, Ontario K1P 6H8
(613) 594-3007

The building of the CHBA/CMHC Demonstration Home involved the cooperative efforts of both the private and public sector. CHMC and the Tripartite Group contributed financial resources; builders and building suppliers donated time and materials.

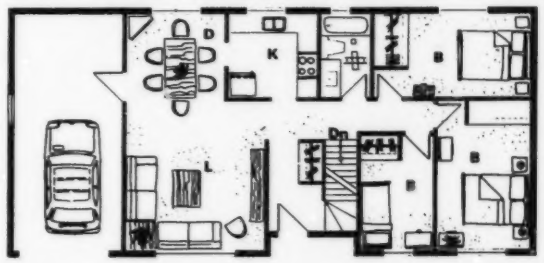
Made-To-Convert Housing

Converting single family houses to include accessory apartments is not a new idea. It occurs in most Canadian cities, particularly in older neighbourhoods where there is a growing demand for smaller dwellings, and where increasing property values and operating costs make the single family occupancy of large homes less and less affordable.

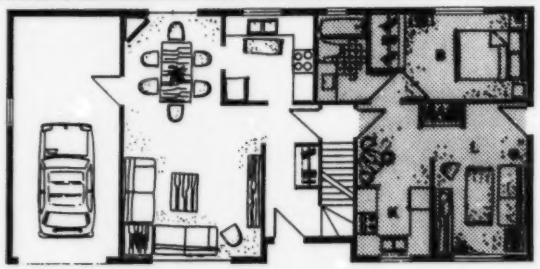
Modifying an existing home can, however, involve extensive and costly changes to the structure, finishes and services. In addition, regulations can often severely restrict changes in occupancy or impose requirements that are difficult or expensive to meet. Currently, few municipalities will grant permission to introduce an accessory apartment into a single family dwelling during the early years in the life of the building. These factors limit the availability of good quality accessory apartments.

Recognizing the potential benefits of constructing houses that could be easily adapted to the changing needs of families and single people, Canada Mortgage and Housing Corporation (CMHC) undertook a study to explore the potential of "made-to-convert" housing. The objective was to examine the practicality of designing and building single family dwellings in ways that would enable accessory apartments to be introduced, or withdrawn, with minimum disruption and cost. The encouraging results of this study are presented in a recent publication "New Made-to-Convert Housing" which can be obtained from the CMHC Display Booth at the CHBA Conference and from CMHC Offices.

There are likely to be major changes in housing markets, resulting from the growing numbers of older people, singles and single parent families. These changes, together with the potential to improve housing affordability for first time home buyers, single parents and older people, should provide many market opportunities for "made-to-convert" housing.

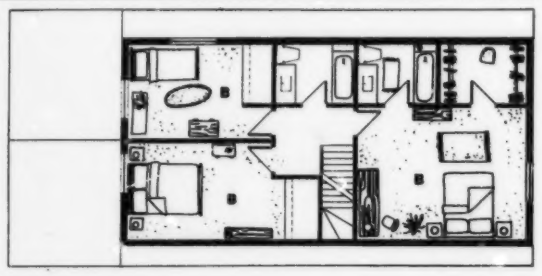


UNCONVERTED (WITH ATTIC POTENTIAL)



CONVERTED (GROUND FLOOR)

EXAMPLE A
BUNGALOW
(WITH ATTIC POTENTIAL)



CONVERTED (ATTIC)

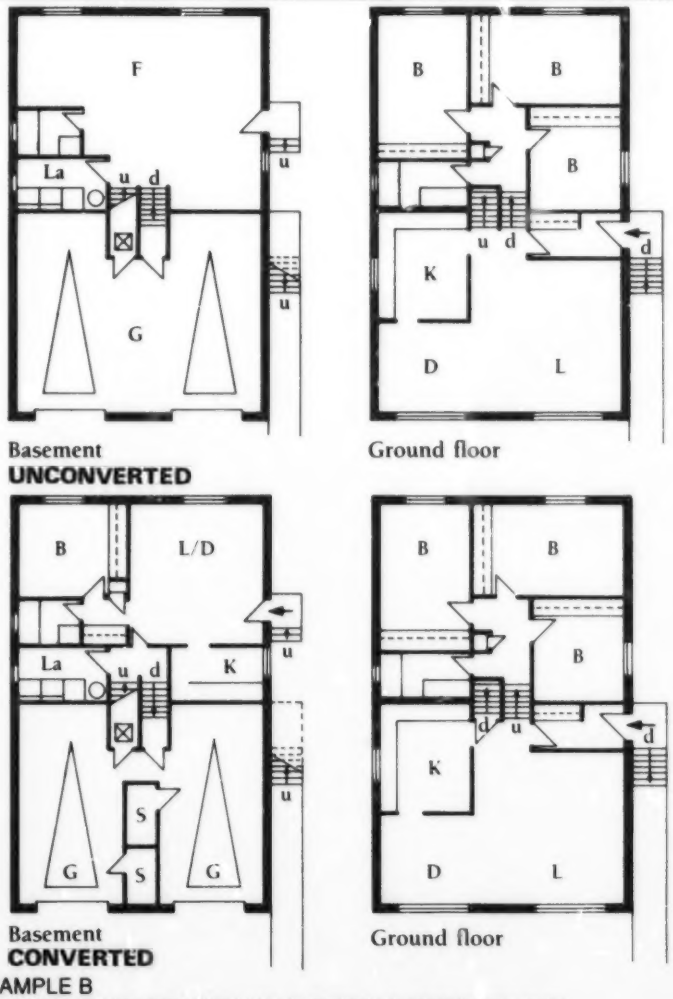
Made-To-Convert Housing

First time buyers could purchase dwellings with an accessory apartment in place, using the rental income to reduce the levels of mortgage payments and qualifying incomes. Some may wish to use an accessory apartment to provide accommodation for elderly parents. During years when space is needed for children, a family can occupy the whole dwelling. Empty-nesters can supplement retirement income with rents from accessory apartments and, for many, this may make it more financially viable for them to remain in their homes.

Two approaches to made-to-convert housing are illustrated in Examples A and B. Example A is a bungalow with the potential to provide accommodation in undeveloped attic space. An accessory apartment can be introduced into the ground floor and bedrooms can be developed in the attic space as required by the family. Example B is a back-split house which provides an opportunity to develop an accessory apartment in the half-depth basement. A garage and storage space can also be made available to the accessory apartment tenants.

The "made-to-convert" concept can be used for many types of dwelling and the CMHC publication illustrates examples applied to single-detached, row, and apartment dwellings.

CMHC welcomes the opportunity to join with CHBA in developing and sponsoring the demonstration house. It is hoped that this initiative will help to stimulate interest in this form of housing and encourage the housing industry and municipalities to work together to make it widely available.



EXAMPLE B
BACK-SPLIT HOUSE WITH HALF-DEPTH BASEMENT UNIT

UNION GAS
We bring the energy

Charlie

COOKS WITH NATURAL GAS

Innovative housing such as the CHBA/CMHC Demonstration Home is a challenge being met by today's natural gas industry, whether it is a single family dwelling, empty next unit, high rise condominium or convertible "stacked" townhouse such as "CHARLIE", we have equipment that can efficiently and economically exceed consumers' requirements.

"CHARLIE" provides the opportunity to utilize two space and domestic water heating systems that allow for the conversion of a single house system into two separate systems and, when required, back into a single space heating and hot water source.

What is especially noteworthy is that all the gas equipment you will see in the CHBA/CMHC Demonstration Home is compatible with R-2000 construction specifications.

ECONOMICAL NATURAL GAS SPACE AND DOMESTIC WATER HEATING

In The First Floor Home...

Water and space heating is provided by a Potable Water Source Space Heating System (P.W.S.S.H. pronounced "PUSH") using the Mor-Flo American "Polaris", a high-efficiency, condensing gas heater. The water heater is connected to a forced air handler equipped with a water-to-air heat exchanger. Together these units supply domestic hot water and forced air space heating to the first floor home. The only vented component is the "Polaris" water heater. It is power vented through the wall, by means of a 2" ABS plastic vent and it brings in its own combustion air from the outside.

On The Second Floor Home...

A Mor-Flo American direct vent water heater, provides domestic hot water. The Suburban Dynatwin, a horizontal high-efficiency direct vent furnace, supplies forced air space heating. This horizontal furnace is installed and concealed in the ceiling. This makes it possible to avoid locating any components below the floor in what is the property of the first floor homeowner, which is a necessity in condominium construction.

An added plus is the capability of these two systems to provide summer cooling. All that is needed are outdoor compressors connected to the evaporator coil in each air handler.

These two independent home comfort systems are convertible into a single system simply by replacing the direct vent water heater and Dynatwin horizontal air handler equipped with a water-to-air heat exchanger. With a few simple plumbing connections to the Polaris water heater downstairs, this system will supply forced air space heating and domestic hot water for the building as a 1900 square foot two storey home.

In this central system, the homeowner still retains individual thermostatic (zone) control on the first and second floor. Each air handler is equipped with its own circulating pump and is therefore capable of drawing water from the Polaris water heater when either of the thermostats calls for heat.

If the building was constructed with a basement, then the space and water heating equipment could be located side by side. This would allow for even more equipment options and would simplify the conversion of "CHARLIE" into a single family dwelling.

Union Gas

Natural Gas Appliances

While the first floor home demonstrates the economy of natural gas appliances, the second floor highlights some of the premium natural gas appliances that are new or may soon be available on the market.

COOKING WITH NATURAL GAS

In The First Floor Home...

Hotpoint 30 inch free-standing gas range is displayed. Natural gas ranges provide instant heat and precise cooking control. The Hotpoint model has electronic ignition and a manual oven with a lower broiler compartment. The cooktop and burners are removable for easy cleaning.

On The Second Floor Home...

The Modern Maid built-in natural gas oven and the new Jenn-Air natural gas cooktop add to the sleek look of this kitchen. The Jenn-Air features electronic ignition and interchangeable griddle and barbeque grill. The gas burners are removable too. The Jenn-Air is designed entirely in black procelain and enamel.

Modern Maid's built-in oven is a 24 inch porcelain oven with bake and broil functions. It has a lower broiler compartment. Featured as well is its electronic ignition and a Delay Cook-N-Off clock.

THE WARMTH AND CONVENIENCE OF A NATURAL GAS FIREPLACE

On The First Floor Home...

Take a close look at CFM Insta-Flame power vent natural gas fireplace. Power vented fireplaces are new — no chimney is required and the vent and exhauster are concealed behind a wall or above the ceiling. In fact, power vent fireplaces can be vented from above or below the fireplace up to a distance of 100 equivalent feet (depending on the make and model). This fireplace has been vented below the floor to the outdoors. The model displayed is equipped with piezo ignition, and automatic push button control. It is available with an optional wall mounted thermostat and hand held cordless remote control kit.

Not displayed, but also available on the market, are direct vent "chimneyless" fireplaces.

In The Second Floor Home...

The three-sided Superior fireplace is a focal point of this second floor luxury home. It is a zero clearance factory built unit that has a custom built look. Residents can enjoy watching the fire from almost any viewing angle.

Clothes Drying...Fast With Natural Gas

Full-shed Maytag staking washer and natural gas dryer sets are hidden in the first and second floor closets. The Maytag gas dryer appliance features computer touch panel with digital readout, computerized moisture sensor control, electronic ignition and front-end servicing. The dryers are vented outdoors in a typical manner.

Outdoor Cooking...Natural Gas Barbeques

With natural gas barbeques there is no tank to run out or refill, and natural gas is about 1/3 the cost of propane.

Outdoor Lighting With Natural Gas

Natural gas outdoor lamps bathe the house in natural light gracing the front entrance and rear balcony of the house. These lamps are made of heavy cast black aluminum and provide the equivalent light of an 80 watt light bulb. In any home they provide convenient security, and are ideal for around swimming pools, walkways and driveways. An added convenience is the electronic eye, a self-contained automatic electronic daytime timer. It dims the gas lamp in response to daylight and saves up to 65% of fuel during daytime use. Outdoor gas lamps are available in brass and wall-mount, post mount or pedestal mount models.

NATURAL GAS DISTRIBUTION SYSTEM

Copper Tubing

Soft copper tubing is a new, economical and versatile piping system. The need for repeated measuring, cutting and threading of pipe is virtually eliminated.

The installer can quickly run copper in the wall and floor cavities, around corners and other obstructions to the point of appliance connection.

The natural gas "appliance manifold", used in 'CHARLIE" provides the convenience of one central shut-off location for all appliances and adding additional gas equipment in the future is a simple matter of running another copper line from the manifold to the appliance location.

The use of soft copper tubing opens up a whole new world of possibilities. Installation of gas appliances can be easily installed in any part of the single family home or multiple unit development.

Union Gas

Union Gas Limited, or your natural gas distributor, will be able to give you full particulars and information.

Natural Gas is the preferred fuel for home comfort in today's homes. It is versatile... capable of providing space and water heating, indoor and outdoor cooking, fireplace warmth, outdoor lighting and now even vehicle fuel (Natural Gas Vehicles). Natural Gas is also the clean, economical fuel that provides affordable home comfort.

The local members of Hamilton & District Home Builders' Association should be recognized for their participation in the CHBA/CMHC Demonstration Home.

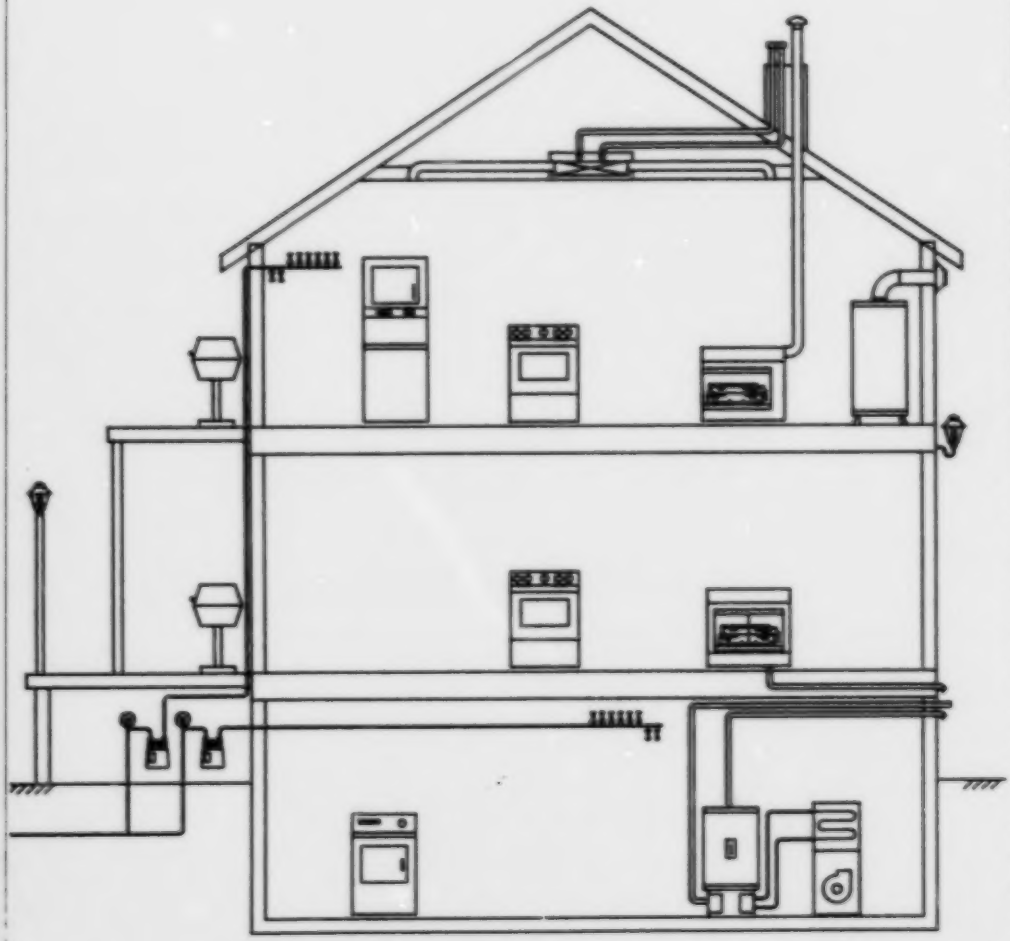
Hunter Hearths of Burlington supplied and installed the gas fireplaces in the two units. They are two of the many styles and decorative finishes the company can supply.

Goemans Appliances of Stoney Creek provided the appliances and this company is prepared to assist you with your requirements.

The staff at Hunter Hearths and Goemans Appliances invite you to their showrooms and will respond to your inquiries.

We must also acknowledge the excellent work done by Boonstra and Reiding Limited. They installed the heating equipment and the record of quality workmanship is a standard for this company.

We invite you to view the heating, water heating and other alternative systems at our booths at the exposition in the Hamilton Convention Centre. Representatives will be available to provide details and other information you may require. Union Gas and our industry allies, which include manufacturers, dealers and trade people are extremely confident we can offer a solution to you needs.



The use of soft copper tubing opens up a whole new world of possibilities.

Union Gas

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Union Gas wishes to acknowledge the following:

APPLIANCE	MANUFACTURER	MAKE/MODEL
Space Heating	Mor-Flo Industries Inc. 18450 Cleveland, Ohio 44128	Mor-Flo American Verical Fan Coil VH-24-HAC
	Suburban Manufacturing Company 2779 Howard Avenue Windsor, Ontario N8X 3X7	Suburban Dynatwin Horizontal Furnace HF-50
Domestic Hot Water	Mor-Flo Industries Inc. 18450 South Miles Road Cleveland, Ohio 44128	Mor-Flo, Polaris American Direct Vent TWDV40SV DWPB35
Natural Gas Fireplaces Supplied by: Hunter Hearth 4129 Harvester Road, Unit 30 Burlington, Ontario	Superior The Fireplace Company Canadian Fireplace Manufacturing Inc.	PF9000 CFM2636-VN
Cooking Equipment Supplied by: Goemans Appliances 124 King St. West Stoney Creek, Ontario	Camco Inc. Jenn-Air Company Modern Maid Company	Hotpoint RGB-528PHA Jenn-Air CG200 Modern Maid DG0 757
Stacked Electric Water and Natural Gas Dryer Supplied by: Maytag Company Limited 279 Belfield Road Rexdale, Ontario N9W 1H5	Maytag Co. Ltd.	SG1000
Outdoor Natural Gas Lamps Supplied by: Gril-Lite Gas Products (Can.) Ltd. 61 Thames Street, P.O. Box 481 Chatham, Ontario N7L 1S3	Gril-Lite Gas Products (Can.) Ltd.	Wall-mount #300 Wall-mount #500
Air Conditioning Supplied by: Monitor Products Inc. P.O. Box 3408 Princeton, New Jersey 08543	Monitor Products Inc.	Dynazone C181C

NOTE: C.G.A. approvals are pending on some of the equipment listed above.

Installation of the heating equipment done by Boonstra and Reiding Limited, 60 Dundas St. West, Hamilton.

Decorating - The Final Touch

As a single family home, the CHBA/CMHC Demonstration Home at approximately 2,000 square feet would be a large home for most families today. However, to demonstrate the convertibility features of the home, it has been built as two separate units - each approximately 1,000 square feet in size.

In decorating the two separate units to give the illusion of space, we must first look at the original design features which are inherent in allowing a spacious atmosphere feeling.

Traffic flow is a vital consideration to any decorating scheme and if you look closely at the layout of the home, you will notice that most of the doorways are located in the centre of the home allowing for an effective flow of traffic. The placement of the doorways makes it easy to follow a path from one room to the next without having to cut off the area with furniture placement. When, due to poor placement, you are forced to place furniture in a traffic flow area, the result is a cumbersome, awkward approach to decorating. In the CHBA/CMHC Demonstration Home traffic flows easily allowing for a more creative use of home furnishings.

Another original design feature which creates the illusion of space is the effective use of windows. Windows let the outdoors come inside and can make a small room appear larger. In designing window treatments consideration should be given to the size of the window and the proportion of both the window and the room. If the rooms are small, letting in as much of the outdoors as possible without compromising privacy is essential in creating the illusion of a larger room. Plants in front of windows also assist in making the space part of the outdoors.

Never has there been so much variety to choose from in window treatments. For a modern, contemporary look many homeowners opt for vertical or horizontal blinds which are available in a myriad of styles, colours and textures. Blinds are also very useful when optimum privacy is desired. For many homeowners, window treatments have become the focal point of a room with use of elaborate swags and jabots to create a more formal, elegant appearance. Ruffles and frills are an effective method in ensuring that window treatments reflect the country style of decorating which continues to be popular with many consumers. Whatever window treatment you choose, particularly in a smaller room, work towards the goal of letting in as much light as possible, while retaining privacy requirements.

Another very simple way to create the illusion of space is to maintain the overall use of a light colour throughout the home. While darker colours can also make rooms larger, due to the design features of the CHBA/CMHC Demonstration Home, we used a common colour through to give a more consistent flow. Accent colours can then be used to provide interest to each room, while maintaining a general feeling of uniformity. When deciding on colours, consideration should be given to natural and artificial light. Generally, south facing windows which receive a lot of sunlight, can benefit from cooler colours such as blues and greens. In north facing rooms, which receive little sunlight, you can warm the room up by using yellows, peaches and oranges. This is not to say you can't use a cool colour in a north facing room, but to give the room the

This country style sofa has the substantial appearance of size but in reality is small enough to fit almost any room. The wood trim is oak and notice the design details at the corner of the skirt. This manufacturer supplied photograph gives a truly homey feel, and when put into the CHBA/CMHC Demonstration Home the feeling is not lost.

feeling of warmth you can simply add a warmer colour as an accent for the desired effect. The opposite approach can be applied to a south facing window by introducing cool colours as accents.

Mirrors are becoming a popular and effective tool to create elegance and space through the material's ability to reflect light and provide depth. A number of mirrors have been used in the demonstration home and in particular in the upper level master bedroom where we have used mirror in the headboard area. While the furniture is quite large, the mirror de-emphasizes the furniture's massiveness. Other mirrors are placed throughout the home to reflect the outdoors and thus create depth.

No matter what the size of the home, window and door placement can turn the largest room into the most awkward to work with if not enough adequate space has been left to place the furniture. Maintaining the balance between functional design elements and the esthetic placement of furniture can be a challenge. In plain English, it means that when the furniture is placed in the room there must be a sense of balance. In a bedroom for instance, dressers and chests shouldn't be lined up along one wall or jammed into a corner with nothing else in the room to balance the visual impact.

Another problem that can be death to a room layout is the tendency to squeeze too much into a room. When space is limited, it is important to rethink what you want to put in it. This can mean doing something unconventional. Furniture today is meant to be flexible so don't necessarily think in terms of how it's shown in a retailer's store — the display is one suggested way to show it in your home but not the only way.

Designer Patricia Knebel worked closely with the staff at Stoney Creek Furniture to choose the few special pieces of furniture that give each room a full and finished look without crossing the line between cozy and crowded. Nowhere is this better displayed than in the upstairs master bedroom where the headboard and night tables one normally finds have been replaced with a wall unit/headboard combination that provides dramatic impact and makes the most of a space that is rarely used for storage. As a result, there is more room than a conventional bedroom suite would allow. The overall effect combines the unique design elements of the furniture with the natural benefits of the room design.

A further critical decision was the scale or size of the pieces. When space must be maximized selecting down-sized pieces of furniture will give a roomier effect. This can mean giving up the idea of a huge over-stuffed couch but the finished room will be worth the sacrifice. Besides, the idea that a small sofa is just for small people and uncomfortable to boot is hopelessly out-of-date. The truth is that size is not a restriction to comfort. But appearances can be deceiving so sit in any upholstered product to see if it meets your comfort expectations, don't just stand and look at it.

Whether you choose to hire an interior designer or do it yourself if you have a small room, or smaller home to decorate remember to consider traffic flow, windows, colours and mirrors to create the desired illusion of space.

Decorating a home to your tastes and lifestyle need not be an expensive proposition. The first floor decorating of the CHBA/CMHC Demonstration Home including lamps, pictures and accents was done for under $10,000.

CHBA/CMHC DEMONSTRATION HOME

Decorated by
Signatures
Interiors by Patricia
Member of Association of
Registered Interior Designers of Ontario
148 Little John Road
Dundas, Ontario L9H 4H3 627-0423
Furnishings and accessories provided by
Stoney Creek Furniture
395 Lewis Road
Box 5, Group 18
Fruitland, Ontario L0R 1L0 643-6132

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List of Donors

ITEM	SUPPLIER
Masonry: installation	**Howard Baker Masonry** Contact: Howard Baker - 681-2775
	5238 Cedarbrook Crescent, Burlington, ON, L7L 3R1
Masonry: installation	**Ashley Masonary Inc.** Contact: Leo D'Atri - 529-7702
	42 Ashley Street, Hamilton, ON, L8L 5S6
Carpentry: installation	**P.A.L. Carpentry Ltd.** Contact: Peter Laurenti - 692-3445
	168 Seland Road East, Stoney Creek, ON, L8G 3X4
Carpentry: exterior framing, carpentry	**Canadian H.O.M.E.S. Contracting** Contact: Randy Nagy - 689-6699
	R.R. #1, Millgrove, ON, L0R 1V0
Misc. installations: framing installation,	**Starward Homes Ltd.** Contact: Ward Campbell - 385-3271
trim installation	152 Hester Street, Hamilton, ON, L9A 2N8
Carpentry: exterior framing, carpentry	**Harvey Beaulne Carpentry Ltd.** Contact: Harvey Beaulne - 647-2493
	R.R. #1, Lynden, ON, L0R 1T0
Framing lumber: material supply	**Nicholson Lumber** Contact: Bill Millward - 634-5568
	4047 Fairview Street, Burlington, ON, L7L 2A4
Floor joists, roof joists: T.J.I. Products	**Trus Joist Canada Ltd.** Contact: Art Cote - 856-2728
	1 Ashbridge Circle, Woodbridge, ON, L4L 1A5
Floor sheathing, exterior wall sheathing:	**Welwood** Contact: Don McTavish
plywood - supply	15 Westdrive, Brampton, ON, L6T 3T5
Roof & siding: plywood - supply, exterior	**MacMillan Bloedel Ltd.** Contact: Dave Sharp - 800-265-8282
siding - supply	50 Oak Street, Weston, ON, M9N 1S1
Roof: pre-engineered trusses - supply	**Uniline Industries** Contact: George Kooiman - 526-8673
	P.O. Box 340, Fonthill, ON, L0S 1E0
Roof: shingles - supply	**AMA Roofing Supplies** Contact: Claude Courchesne - 389-6071
	130 Hempstead Drive, Hamilton, ON, L8W 2E7
Roof: shingles - installation	**Witten Home Improvements** Contact: John Witten - 549-2284
	495 Woodward Avenue, Hamilton, ON, L8H 6N6
Exterior windows & doors:	**Robert Hunt Corp.** Contact: Fred Toy - 639-7410
3 window units - front elevation	3455 Harvester Road, Unit 30, Burlington, ON, L7N 3P2
2 patio doors - rear 2nd floor	
Exterior windows & doors: 1 window unit	**Pollard Windows** Contact: Mike Pollard - 634-2365
- front elevation, steel entrance doors - front	1217 King Road - Box 507, Burlington, ON, L7R 3Y3
elevation, patio door & windows - rear elev.	
Exterior bay windows: supply & installation	**Canadiana Windows** Contact: Jim Campbell - 561-3181
of bay windows - side elevation	Box 9291, Stoney Creek, ON, L8G 3X9
Roof windows: supply	**Velux** Contact: Chris Johnson - 514-694-6050
	16817 boul. Nymus Blvd., Kirkland, PQ, H9W 3L4
Exterior windows: glass block AGHEBO	**Hollander Glass Canada** Contact: Bill Dick - 1-238-1715
system & fabrication	3095 Universal Drive, Mississauga, ON, L4X 2E2
Exterior windows: glass block - supply	**Pittsburgh Corning Corp.** Contact: Gavin Burgess - 222-8084
	6 Lansing Square, Willowdale, ON, M2J 1T5
Exterior wolmanized lumber: wolmanized	**Goodfellow Lumber Ltd.** Contact: Doug Goodfellow - 335-5800
material - supply	5155 #5 Highway, P.O. Box 5001, L7R 3Y8
Exterior landscaping & fencing: installation	**Shademaster Landscaping Inc.** Contact: Barry Hordyk - 689-4297
	R.R. #1, Waterdown, ON, L0R 2H0
Exterior fencing & decking: installation	**Action Fence Systems Inc.** Contact: Jim Fochuk - 545-3333
	Box 3024, Station 'C', Hamilton, ON, L8H 7J3
Heating (mechanical): heating equipment	**Boonstra & Reiding Limited** Contact: Clarence Boonstra - 689-7951
installation & material	630 Dundas Street WestHamilton, ON, L9G 1G6
Heating (mechanical): heating equipment	**Union Gas Limited** Contact: Dan Condon - 548-3477
- supply, air conditioning - supply, hot	Box 10, Station 'A' Hamilton, ON, L8H 5L1
water tank - supply	
Heating (mechanical): air exchanger - supply	**G. C. McDonald (Supply)** Contact: Ian McDonald - 519-753-3186
	360 Elgin Street, Brantford, ON, N3T 5N3
Plumbing: installation	**Hugh Sutherland & Sons Ltd.** Contact: Scott Sutherland - 639-2330
	5370 Munro Court, Burlington, ON, L7L 5N8

List of Donors

ITEM	SUPPLIER
Plumbing: supply of acrylic tub & shower, 2nd floor bathroom	**Mirolin Industries** Contact: Tom Meier - 231-5790 200 Norseman, Toronto, ON, M8Z 2R4
Plumbing: supply tub, toilet, pedestal sink, all taps, kitchen sink, 2nd floor toilet, vanity, sink, taps first floor washroom	**Crane Canada Inc.** Contact: Bob Bielawski - 573-3098 107 Athenia Drive, Stoney Creek, ON, L8J 1S4
Plumbing: plumbing material (misc.)	**Westburne Central Supply** Contact: Jim Cochrane - 637-3446 4190 Fairview Street, Burlington, ON, L7L 4Y8
Plumbing: plumbing material (misc.)	**Canron Inc.** Contact: Bruce Bishop - 742-5334 25 Clayson Road, Weston, ON, M9M 2G6
Electrical: installation	**Taylor Electric** Contact: Brian Taylor - 689-0884 1435 Milburough Line, P.O. Box 182, Carlisle, ON, L0R 1H0
Electrical: installation	**F. Bortolussi Electric Ltd.** Contact: Frank Bortolussi - 561-4017 6 Zell Court, Hamilton, ON, L8K 5N9
Electrical: material supply	**Westburne Electric** Contact: John Blain - 637-3446 285 Nash Road, Hamilton, ON, L8H 7P4
Lighting: supply & installation of exterior gas lighting	**Union Gas Limited** Contact: Dan Condon - 548-3477 Box 10, Station 'A', Hamilton, ON, L8H 5L1
Vacuum system: supply & installation of vacuum system	**National Vacuum** Contact: Al Wood - 639-0262 3052 New Street, Burlington, ON, L7N 1M5
Security: monitoring of home	**Cairn Control Systems Inc.** Contact: Alvis Zujevs - 664-6665 34 Puritan Court, Stoney Creek, ON, L8E 4L1
Video intercom system: supply & installation	**Alliance Security** Contact: Ted Mills - 575-4585 1039 Upper James Street, Hamilton, ON, L9C 3A6
Sprinkler system: supply & installation	**Serv-Alarm Service & Maintenance Co. Ltd.** Contact: Don Garbutt - 545-9111 830 Dunn Avenue, Hamilton, ON, L8H 6N2
Security system, video system: supply & installation	**Cairn Control Systems Inc.** Contact: Alvis Zujevs - 664-6665 34 Puritan Court, Stoney Creek, ON, L8E 4L1
Stairs & railings: supply & installation of stairs & railings	**Staircase (Div. of Wm. Buchanan Ltd.)** Contact: Ken Earl - 648-8890 Box 7428, Ancaster, ON, L9G 4G4
Fireplaces: supply and installation of two zero clearance fireplaces	**Hunter Hearths** Contact: Vic Mancini - 639-1391 3245 Harvester Road, Burlington, ON, L7N 3T7
Drywall & insulation: labour	**Waco Drywall Services Limited** Contact: Bruno Comegna - 335-3355 1098 Heritage Road, Burlington, ON, L7L 4X9
Insulation: supply	**Fiberglas Canada Inc.** Contact: Jim Turnbull - 561-2011 398 Kenora Avenue, Hamilton, ON, L8E 2W2
Drywall: supply	**Canadian Gypsum Company Ltd.** Contact: Dan Bailey - 519-894-3131 20 Steckle Pl., Unit 5, Kitchener, ON, N2E 2C3
Drywall: supply	**Westroc Industries Limited** Contact: Bill Paul - 823-9881 2424 Lakeshore Road West, Mississauga, ON, L5J 1K4
Drywall: material supply	**Domtar Construction Materials** Contact: Ken McLeod - 677-6000 616 Wickens Avenue, Burlington, ON, L7T 3T2
Trim interior: installation	**Ken Sutherland Construction** Contact: Ken Sutherland - 639-7777 2112 Edinborough Drive, Burlington, ON, L7R 2C9
Trim interior: installation	**Starward Homes** Contact: Ward Campbell - 385-3271 152 Hester Street, Hamilton, ON, L9A 2N8
Trim interior: installation	**Valerio Bros. General Carp.** Contact: Saverio Valerio - 575-3315 327 West 17th Street, Hamilton, ON, L9C 4G2
Interior trim: material - supply	**Turkstra Lumber Co. Ltd.** Contact: Ron Turkstra - 388-8220 1050 Upper Wellington Street, Hamilton, ON, L9A 3S6
Interior trim: mirrored doors, interior hardware, mirrors, interior doors	**Nelson Door & Hardware** Contact: Sam Nelson - 335-6166 1110 Heritage Road - Unit A, Burlington, ON, L7L 4X9
Interior trim: interior doors - both floors	**Premdor** Contact: Ray Taylor - 291-7321 426 Ellesmere Road, Scarborough, ON, M1R 4E7
Interior windows - trim: window casing for	**Millcraft Systems** Contact: Wayne Barton - 336-1939 1151 Heritage Road, Burlington, ON, L7L 4Y1

List of Donors

ITEM	SUPPLIER
2nd floor tub enclosure: marble panels	**Hamilton Classic Marble** Contact: Al Bonamo - 547-6622 689-6460
- supply & installation	40 Biggar Avenue, Hamilton, ON, L8L 3Z4
First & second floor, sheet goods: supply &	**Witten Home Improvements** Contact: John Witten - 549-2284
installation	495 Woodward Avenue, Hamilton, ON, L8H 6N6
Interior floor coverings: broadloom supply &	**Vartanian Rugs Limited** Contact: Norm Vartanian - 528-8907
installation	320 Greer Road, Stoney Creek, ON, L8E 2B2
Floor covering: supply of marble tile	**The Marble Shop** Contact: James Scarrow - 383-4449
- front vestibule - 2nd floor bathroom	143 Hester Street #7, Hamilton, ON, L9A 2N9
Interior floor coverings: installation of marble	**Russ Hayes Company Ltd.** Contact: Chris Page - 527-2015
floor tiles	370 King Street West, Hamilton, ON, L8P 1B3
Paint - interior/exterior: material supply	**Standard Paint & Wallpaper** Contact: Jim Newton - 681-2745
	770 Guelph Line, Burlington, ON, L7R 3N5
Painting: interior wallpaper - labour	**Branthaven Homes** Contact: Al Stipsits - 689-8074
	Box 367, Burlington, ON, L7R 3Y3
Painting: interior/exterior labour	**Branko's Painting & Decorating** Contact: Branko Bolibruch - 560-1683
	114 Mount Albion Road, Hamilton, ON, L8K 5S8
Lighting: supply of interior light fixtures	**Sescolite Lighting** Contact: Lex Vanthof - 632-8659
	4175 Fairview Street, Burlington, ON, L7L 2A4
Lighting: domed lighted ceiling	**Strata Lighting Systems** Contact: Brian Walker - 774-9262
	101 Main Street West, Dunnville, ON, N1A 3C8
Hardware: supply	**Wilkinson & Kompass Limited** Contact: George Moncur - 527-3611
	Box 518-400 Wentworth N., Hamilton, ON, L8N 3K4
Miscellaneous interior fixtures & accessories:	**Sabel's Bathrooms Ltd.** Contact: Jose Geada - 575-5151
bathroom accessories	240 Nebo Road, Hamilton, ON, L8W 2E4
Cabinetry: supply & installation of kitchen	**MJP Millwork Limited** Contact: Matt Piotrowicz - 561-2972
cabinets & bathroom vanity	29a-265 Barton Street East, Stoney Creek, ON, L8K 2K4
Appliances: supply of interior appliances	**Goemans Appliances** Contact: Tony Goemans - 560-0647
	903 Queenston Road, Stoney Creek, ON, L8G 1B6
2nd floor bathroom door: glass door - supply	**Canadiana Windows** Contact: Jim Campbell - 561-3181
	Box 9291, Stoney Creek, ON, L8G 3X9
Furnishings: interior furniture supply and	**Stoney Creek Furniture** Contact: Dennis Lovosel - 560-3303
set-up	395 Lewis Avenue, Box 5, Group 18, Winona, ON, L0R 1L0
Draperies: supply & installation	**Gergenti Drapery and Installation** Contact: Steve Gergenti - 385-0761
	79 Lionsgate Avenue, Hamilton, ON, L9C 6X7
Exterior siding: installation	**Canadiana Home Improvement Centre** Contact: Jim Campbell - 561-3181
	Box 9291, Stoney Creek, ON, L8G 3X9
Exterior siding: supply	**Alcan Building Products** Contact: Al Rizzito - 561-1424
	710 South Service Rd., Grp 15, R.R. #2, Stoney Creek, ON, L8G 3X5
Exterior siding: supply	**DAYMOND, A Division of Redpath Ind.** Contact: William Zell - 823-4423
	2441 Royal Windsor Drive, Mississauga, ON, L5J 4C7
Exterior siding: supply	**Hunter Douglas Canada Ltd.** Contact: John Savage - 560-4710
	2289 Barton Street East, Hamilton, ON, L8E 2W8
Exterior masonary finishes: supply & install	**Arriscraft Corporation** Contact: Ron Harrision - 800-265-8123
angelstone on front elevation	Box 3190, Cambridge, ON, N3H 4S8
Exterior deck covering: duradek - supply &	**D. J. McLeod & Co.** Contact: Jack McLeod - 639-1702
installation	606 Ronald Drive, Burlington, ON, L7N 3A8
Miscellaneous supplies: miscellaneous	**Hamilton Builders Supply Inc.** Contact: Dave Stevens - 388-2352
building supplies	Box 6026, Station F, Hamilton, ON, L9C 5S2
Miscellaneous supplies: miscellaneous	**C.A. Building Products Ltd.** Contact: Don Meehan - 634-7707
masonary supplies	2082 Queensway Drive, Burlington, ON, L7R 3T1
Building materials: miscellaneous	**Ferrell Builders Supplies Ltd.** Contact: Don Trombetti - 387-1948
	1549 Rymal Road, Box 176, R.R. #1, Hannon, ON, L0R 1P0
Rental equipment: supply	**Battlefield Equipment Rentals Ltd.** Contact: Tony Brunet - 577-7777
	P.O. Box 9340, Stoney Creek, ON, L8G 4S1
On-site supervision: supervision	**Alterra Developments Limited** Contact: Rob Cooper - 1-967-1800
	920 Yonge Street Ste. 1000, Toronto, ON, K4W 3C7

List of Donors

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ITEM	SUPPLIER
Disposal: container pick-up & delivery	**Hotz & Sons Co. Ltd.** Contact: Kevin Hall - 527-9266
	166 Ferguson Avenue North, Hamilton, ON, L8L 4Y4
On-site labour: jobsite clean-up	**Westpark Developments** Contact: Tony Battaglia - 574-0489
	19 Serafino Court, Hamilton, ON, L9B 1X3
Excavating: equipment supply	**Advance Excavating** Contact: Willie Campbell - 561-4231
	505 Kenora Avenue, Bldg. 1, Hamilton, ON, L8E 3P2
Concrete blocks: supply	**Day & Campbell Ltd.** Contact: Peter McQueen - 385-5315
	1074 Upper Wellington Street, Hamilton, ON, L9A 3S6
Concrete products: supply	**Dufferin Concrete Products** Contact: Dave Robb - 547-1421
	1925 Barton Street East, Hamilton, ON, L8H 2Y7
Design, model, graphics, structural: working	**R.E. Winter & Assoc.** Contact: Christoper Long - 639-6595
drawings - full scale model, site inspections	3425 Harvester Road, Suite 201, Burlington, ON, L7N 3N1
Renderings: ink & coloured renderings	**Steelworks** Contact: Rhonda Steele - 849-9844
	136 Randall Street, St. 219, Oakville, ON, L6J 1P4
Interior design: consulting	**Signature Interiors by Patricia** Contact: Patricia Knebel - 627-0423
	148 Little John Road, Dundas, ON, L9H 4H3
Signage: production of interior & exterior	**Bennett Signs Ltd.** Contact: Sue Smalley - 662-8532
signage	44 Community Avenue, Stoney Creek, ON, L8E 2Y3
Insurance: building coverage liability	**Dalgleish Comp. Ins. Brokers Inc.** Contact: Don Dalgleish - 681-0872
insurance	3027 Harvester Road Ste. 216, Burlington, ON, L7N 3G7
Advertising: promotion	**The Ad Channel** Contact: Bill Murphy - 526-7355
	228 King St. West Ste. 2, Hamilton, ON, L8P 1A7
Other donors	**Armour Steel Supply Limited** Contact: John Bruzzese - 388-7751
	P.O. Box 1394, Caledonia, ON, N0A 1A0
Other donors	**Delmar Contracting** Contact: Bill Robinson - 643-4151
	696 Arvin Avenue, Fruitland, ON, L0R 1L0
Other donors	**Lighting Magic** Contact: Sue Hurst - 387-3300
	240 Nebo Road, Hamilton, ON, L8W 2E4
Other donors	**Mattwood Construction Ltd.** Contact: Lou Mattiacci - 639-1324
	3455 Harvester Road, Unit 27, Burlington, ON, L7N 3P2
Other donors	**Monarch Construction Ltd.** Contact: Mike Bryan - 632-1294
	1426 Ontario Street, Burlington, ON, L7S 1G4
Other donors	**Mountainview Homes** Contact: Nick Basciano - 688-3100
	261 Martindale Road, #12, St. Catharines, ON, L2R 6P9
Other donors	**Ontario Hydro Corp.** Contact: Jim Connell - 628-2265
	12 Kings Forest Drive, Hamilton, ON, L8T 4J3
Other donors	**George Sinclair Construction** Contact: Bud Sinclair - 561-9230
	505 Kenora Avenue, Building #1, Hamilton, ON, L8P 3P2
Other donors	**Stewart Homes** Contact: James K. Stewart - 648-5682
	Box 7184, Ancaster, ON, L9G 3L4

Special Thanks To

Canada Mortgage & Housing Corporation
R-2000
Federation of CanadianMunicipalites
City of Hamilton
- *Building Department - Peter Lampman*
- *Planning Department - Victor Abraham*

City of Hamilton - Mayor Bob Morrow
Region of Hamilton-Wentworth
Board of Education - City of Hamilton
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Staff at Canadian Home Builders' Association
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